SEDIMENT REMOVAL BIBLIOGRAPHY

- Compiled by Janine Castro, US Fish and Wildlife Service, Portland, Oregon, March 1, 2006
- Alexander, G.R. and E.A. Hansen. 1983. Sand sediment in a Michigan trout stream, Part II. Effects of reducing bedload on a trout population. *North American Journal of Fisheries Management* 3:365-372.
- American Fisheries Society. 2002. Position paper on instream sand and gravel mining activities in North Carolina, February 6, 2002. North Carolina Chapter of the American Fisheries Society.
- American River Management Society. 1996. ARMS News. Summer 1996, Vol 9, No. 2.
- Annandale and Gilpin. 1992. Engineering risk analysis of sand and gravel operations. In: Van Zyl, Dirk, Koval, Marshall, and Li (Eds.), Risk Assessment/Management Issues in the Environmental Planning of Mines.
- Andrews, J. and D. Kinsman. 1990. Gravel pit restoration for wildlife: a practical manual. Sandy, Bedfordshire, Royal Society for Protection of Birds.
- Anonymous. 1985. Attacks on the Otaki gravel or grants? *Soil and Water Magazine*, National Water and Soil Conservation Authority, Wellington, New Zealand, 21(2):2-6.
- Anonymous. 1986. Rocks from the rivers a report on gravel extraction in NZ's lower North Island. *Soil and Water Magazine*, National Water and Soil Conservation Authority, Wellington, New Zealand, 22(4):2-14.
- Anonymous. 2000. A review of options for improving the regulation of aggregate, a diminishing pulic resource. Internal Government of British Columbia Document. 7 pp. & appendices.
- Arnold, L.R., W.H. Langer, and S.S. Paschke. 2003. Analytic and numerical simulation of the steady-state hydrologic effects of mining aggregate in hypothetical sand-and-gravel and fractured crystalline-rock aquifers. USGS Water Resources Investigations Report 02-4267, 56 pp.
- Baker, D. 1998. Planning for Aggregate Extraction: Using an Integrated Resource Management Approach. *In*: Aggregate resources: a global perspective (P.T. Bobrowsky, ed.), pp. 87-99. A.A. Balkema, Rotterdam. 470 pp.
- Bates, K. 1987. Fisheries perspectives on gravel removal from river channels. *In:* Realistic Approaches to Better Floodplain Management. Proceedings of the Eleventh Annual Conference of the Association of State Floodplain Managers, Seattle, June 1987. Natural Hazards Research and Applications Information Center, Special Publication, 18:292-298.
- Bates, K. 1992. Floodplain gravel mining: potential fishery impacts, suggested mitigation. State Department of Fisheries, Habitat Management Division. December 26, 1992.

- Bauer, A.M. 1982. Manipulating mining operations to create wildlife habitats: a pre-mining planning process. *In*: W.D. Svedarsky and R.D. Crawford (eds.), Wildlife values of gravel pits. University of Minnesota Agricultural Experiment Station, Miscellaneous Publications 17-1982, pp. 41-43.
- Bayley, P.B. 1997. DRAFT Floodplain restoration in off-channel habitats used for gravel mining in the Willamette River Basin: effects on fish populations. Proposal to the Oregon Wildlife Heritage Foundation (Willamette River Gravel Removal Fund for Compensatory Mitigation).
- Bayley, P.B. and C.F. Baker. 2000. Floodplain restoration in off-channel habitats used for gravel mining in the Willamette River basin: fish population observations in Endicott and Truax Ponds. 1998/00 Report to Willamette Gravel Group, Oregon. Fisheries and Wildlife Department, Oregon State University, 104 Nash Hall, Corvallis, OR 97330.
- Bayley, P.B., P.C. Klingeman, R.J. Pabst, and C.F. Baker. 2001. Restoration of aggregate mining areas in the Willamette River floodplain, with emphasis on Harrisburg site. Final Report to Oregon Watershed Enhancement Board, Grant 99-118.
- Beeby, D.J. 1998. Successful integration of aggregate data in land-use planning: a California case study. *In*: Aggregate resources: a global perspective (P.T. Bobrowsky, ed.), pp. 113-129. A.A. Balkema, Rotterdam. 470 pp.
- Bishop, H.F. and B.E. Hanna. 1979. Gravel mining and land development can go hand in hand. *Civil Engineering—ASCE*. 49(2):65-67.
- Bobrowski, P.T. editor. 1998. Aggregate resources a global perspective.: Rotterdam, Netherlands, A.A. Balkema, 470 p.
- Bowen, P.T. and J.F. Harp. 1986. Cumulative effects of sand mining in inland rivers. *In*: Third International Symposium on River Sedimentation, University of Mississippi, 1191-1199.
- Brown, A.V., M.M. Lyttle, and K.B. Brown. 1992. Impacts of gravel mining on Ozark stream ecosystems. Fayetteville, AR, Arkansas Cooperative Fish and Wildlife Research Unit: 1-118.
- Brown, A.V., M.M. Lyttle, and K.B. Brown. 1998. Impacts of gravel mining on gravel bed streams. *Trans. Amer. Fish. Soc.* 127: 979-994.
- Bruesch, W.R. 1980. An evaluation of effects of excavations in the vicinity of the I-10 Salt River Bridge on the flow regime and local scour at the bridge. Phoenix: Arizona Department of transportation, Highways Division Structures Section.
- Bryant, M.D. 1988. Gravel pit ponds as habitat enhancement for juvenile coho salmon. General Technical Report PNW-GTR-212, Portland, OR, US Department of Agriculture, Forest Service, Pacific Northwest Research Station, pp.1-10.

- Buffington, J.M., W.E. Dietrich and J.W. Kirchner. 1992. Friction angle measurements on a naturally formed gravel streambed: implications for critical boundary shear stress. *Water Resources Research*, 28:411-425.
- Bull, W.B. and K.M. Scott. 1974. Impact of mining gravel from urban stream beds in the southwestern United States. *Geology*: 171-174.
- Burger, C. and L. Swenson. 1977. Environmental surveillance of gravel removal on the Trans-Alaska Pipeline System with recommendations for future gravel mining. Joint State/Federal Fish and Wildlife Advisory Team Special Report No. 13, Anchorage, Alaska. 35pp.
- Carling, P.A. and N.A. Reader. 1982. Structure, composition, and bulk properties of upland stream gravels. *Earth Surface Processes and Landforms*, 7:249-365.
- Chang, H.H. 1992. An investigation of the causes of accelerated channel erosion and development of countermeasures for bridge stabilization on Stony Creek. Department of Civil Engineering, San Diego State University, California, unpublished report submitted to the California Department of Transportation, March, 1992.
- Chang, H.H. 1987. Modeling fluvial processes in streams with gravel mining. *In*: C.R. Thorne, J.C. Bathurst, and R.D. Hey (eds.) Sediment Transport in Gravel-Bed Rivers: John Wiley and Sons, 977-988.
- Chang, R.C. and J.F. Harp. 1980. Conservation impacts and practices of sand removal from dry bed Oklahoma rivers: Oklahoma Water Research Institute, Oklahoma State University, 34 p.
- Chenoweth, R.E., W.G. Tlusty, and B.J. Niemann, Jr. 1982. Public rights to scenic resources: infringement is sufficient cause for denial of lowland sand and gravel operations in Wisconsin. *In*: W.D. Svedarsky and R.D. Crawford (eds.), Wildlife values of gravel pits. University of Minnesota Agricultural experiment Station, Miscellaneous Publications 17-1982, pp. 73-79.
- Clearwater BioStudies, Inc. 2003. REVIEW DRAFT: Geomorphic and riparian assessment of the Lower South Fork of the Coquille River. Prepared for Coquille Watershed Association, Oregon.
- Cobelas, M.A. 1992. Temperature and heat in a hypertrophic, gravel-pit lake. *Archive für Hydrobiologie* 125:279-294.
- Collins, B.D. 1991. River geomorphology and gravel mining in the Pilchuck River, Snohomish County, WA. Unpublished report to the Pilchuck River Coalition, 52 pp.
- Collins, B.D. 1992. River-channel sediment budget and gravel mining in the Stillaguamish River, 1962-1991, Snohomish County, WA. Unpublished report to Lone Star Northwest, 41 pp.

- Collins, B.D. 1993. Sediment transport and deposition in the lower Big Quilcene River and evaluation of planned gravel removal for flood control. Report to Dungeness-Quilcene Water Resource Planning Pilot Planning Project, Sequim, WA, Hood Canal Salmon Assessment Group, Brinnon, WA, and Port Gable S'Klallam Tribe Fisheries Office, Kingston, WA.
- Collins, B.D. 1994. Changes to the riverine landscape from sand and gravel mining in active floodplains, and implications for ecosystem and salmonid habitat restoration. American Fisheries Society 1994 Northeast Pacific Chinook and Coho salmon Workshop, Nov. 7-10, 1994, Eugene, OR.
- Collins, B. 1995. Riverine gravel mining in Washington State, physical effects with implications for salmonid habitat, and summary of government regulations. Report prepared for: US Environmental Protection Agency, Grant X-000694-01-0.
- Collins, B.D. 1996. Geomorphology and riverine gravel removal in Washington State. In: Booth, D.B. Geology and geomorphology of stream channels course manual: University of Washington, Center for Urban Water Resources management, p. IX-1-IX-45.
- Collins, B. 1997. Application of geomorphology to planning and assessment of riverine gravel removal in Washington. *In*: Geology and Geomorphology of Stream Channels course manual, University of Washington, Seattle, p. IX-1-IX-46.
- Collins, B. and T. Dunne. 1990. Fluvial geomorphology and river-gravel mining: a guide for planners, case studies included. Calif. Depart. Conserv., Div. Mines Geol., Spec. Pub. 98. 29 pp.
- Collins, B. and T. Dunne. 1989. Gravel transport, gravel harvesting, and channel-bed degradation in rivers draining the southern Olympic Mountains, Washington, USA. *Environmental Geology Water Sciences* 13(3):213-224.
- Collins, B.D. and T. Dunne. 1987. Assessing the affects of gravel harvesting on river morphology and sediment transport: a guide for planners. Report to State of Washington, Department of Ecology, Olympia, WA, 45 p.
- Collins, B.D. and T. Dunne. 1986. Gravel transport and gravel harvesting in the Humptulips, Wynoochee, and Satsop Rivers, Grays Harbor County, Washington: report to Grays Harbor County Planning and Building Department, Montesano, WA, 70 p.
- Colorado Department of Natural Resources, Division of Minerals and Geology. 1998. In-stream aggregate extraction and reclamation guidance document. 46 p. and 6 appendices.
- Cotton, G.K. and V. Ottozawa-Chatupron. 1990. Longitudinal channel response due to in-stream mining. *In*: Hydraulic Engineering, Conference Proceedings, ASCE. Pp. 957-962.
- Cross, F.B., F.J. DeNoyelles, S.C. Leon, S.W. Campbell, S.L. Dewey, B.D. Heacock, and D. Weirick. 1982. Impacts of commercial dredging on the fishery of the lower Kansas River.

- Report to the US Army Corps of Engineers, Kansas City, MO.
- Crossett Avila, C.M. 1998. Managing impacts of gravel mining on bridges in California. Masters Thesis.
- Crunkilton, R.L. 1982. An overview of gravel mining in Missouri and fish and wildlife implications. *In*: W.D. Svedarsky and R.D. Crawford (eds.) Wildlife Values of Gravel Pits. Northwest Agricultural Experiment Station, Univ. Minn. Tech. Coll., Crookston. Misc. Pub. No. 17. p. 80-88.
- Cunjak, R.A. 1996. Winter habitat of selected stream fishes and potential impact from land-use activities. *Canadian Journal of Fisheries and Aquatic Sciences*, 53(1):267-282.
- Dames and Moore. 1991. Draft program environmental impact report, Cache Creek aggregate resources mining activities and policy alternatives. Prepared for the County of Yolo.
- Davis, J.A., J.F. Bird, and B.L. Finlayson. 1997. Avon River gravel extraction study, final report. Parkville, Department of Civil and Environmental engineering, The University of Melbourne: 52.
- Davis, J.J., B. Finlayson, and R. Scott. 2000. The management of gravel extraction in alluvial rivers: a case study from the Avon River, southeastern Australia. *Physical Geography*, 21(2):133-154.
- Denver Urban Drainage and Flood Control District. 1987. Technical review guidelines for gravel mining activities.
- Dietrich, W., J. Kirchner, H. Ikeda, and F. Iseya. 1989. Sediment supply and the development of the coarse surface layer in gravel-bedded rivers. *Nature* 340:215-217.
- Downs, P. 1995. Estimating the probability of river channel adjustment. *Earth Surface Processes and Landforms* 20:687-705.
- Dunne, T. W.E. Dietrich, N.F. Humphrey, and D.W. Tubbs. 1981. Geologic and geomorphic implications for gravel supply. *In*: Proceedings from the Conference, Salmon-Spawning Gravel: a Renewable Resource in the Pacific Northwest? October 6-7, 1980, Seattle, Washington.
- Dykaar, B.B. and P.J. Wigington. 2000. Floodplain formation and cottonwood colonization patterns on the Willamette River, Oregon, USA. *Environmental Management* 25(1):87-104.
- Erskine, W.D. 1988. Environmental impacts of sand and gravel extraction on river systems. *In*: The Brisbane River, 295-303.
- Erskine, W.D., P.M. Geary, and D.N. Outhet. 1985. Potential impacts of sand and gravel extraction on the Hunter River, New South Wales. *Australian Geographical Studies* 23:71-

- Erskine, W.D. 1996. Environmental impacts of tidal dredging on the Brisbane River, Queensland. First National Conference on Stream Management in Australia, Merrijig, Australia.
- Erskine, W.D., W.K. Tennant, and J.W. Tilleard. 1996. Sustainable sand and gravel extraction: The development of a management plan for the Goulburn River, Victoria. *In*: Proceedings of the First National Conference on Stream Management in Australia, Merrijig, 19-23 February, 1996.
- Etnier, D.A. 1972. The effects of annual rechanneling on a stream fish population. *Transactions American Fisheries Society* 101(2):372-375.
- Evoy, B. and M. Holland. 1989. Surface and groundwater management in surface mined-land reclamation. California Department of Conservation, Division of Mines and Geology, Special Report 163, 39 pp.
- Federal Water Pollution Control Administration. 1968. Sand and gravel waste evaluation study, South Platte River Basin, Colorado.
- Ferguson, A. 1991. Navigation, dredging and environment in the Fraser River Estuary. For: Fraser River Estuary Management Program, Navigation and Dredging Workgroup. By: Regional Consulting Ltd. 89 pp.
- Filipek, S. 1997. The politics of gravel mining: now you see it, now you don't. Abstract from the 1997 Southern Division of the American Fisheries Society Midyear Meeting held in San Antonio, Texas. http://www.sdafs.org/meetings/97sdafs/san_grav/filipek.htm.
- Florsheim, J., P. Goodwin, and L. Marcus. 1998. Geomorphic effects of gravel extraction in the Russian River, California. *In*: Aggregate resources: a global perspective (P.T. Bobrowsky, ed.), pp. 87-99. A.A. Balkema, Rotterdam. 470 pp.
- Florsheim, J. and P. Williams. 1996. Lower South Fork Coquille River bank stabilization. Report frepared for the Coquille Watershed Association and the Coos County Soil and Water Conservation District.
- Follman, E.H. 1980. Interdisciplinary overview of gravel removal. *In*: Gravel removal studies in arctic and subarctic floodplain in Alaska technical report (Woodward-Clyde Consultants, ed.), pp. 331-384. U.S. Fish Wildl. Serv., Biological Services Program, FWS/OBS-80/08. 403 pp.
- Forshage, A. and N.E. Carter. 1973. Effect of gravel dredging on the Brazos River. *Southeast. Assoc. Game Fish Comm.* 24: 695-708.
- Frost, R. 2004. Oregon Department of Transportation Aggregate Resource Management Program Informational Briefing Paper. Prepared for US Fish and Wildlife Service, March 1, 2004.

- Gaillot, S. and H. Piégay. 1999. Impact of gravel-mining on stream channel and coastal sediment supply, example of the Calvi Bay in Corsica (France). *Journal of Coastal Research* 15(3): 774788.
- Galay, V.J. 1983. Causes of river bed degradation. Water Resources Research 19:1057-1090.
- Giles, N. 1992. Wildlife after gravel: twenty years of practical research by The Game Conservancy and ARC. The Game Conservancy, Fordingbridge, Hampshire.
- Graf, W.L. 1979. Mining and channel response: Washington D.C. *Annals of the Association of American Geographers* 69(2):262-275.
- Grindeland, T.R. and H. Hadley. 2003. Floodplain gravel mine restoration: peril or opportunity? World Water and Environmental Resources Congress 2003, Conference Proceedings, ASCE.
- Hair, D.E., R. Stwell, and W. Paradis. 1986. To hell and back: rehabilitation of a placer mine stream. *In*: J.G. Miller, J.A. Arway, and R.F. Carline (eds.), The 5th Trout Stream Habitat Improvement workshop. PA Fish Comm., Harrisburg, PA, 265 pp.
- Hamilton, J.D. 1961. The effect of sand-pit washings on a stream fauna. *Verh. Internat. Verein. Limnol.* 14:435-439.
- Hardinger, D.K. 1980. Effects of gravel removal on aesthetics. *In*: Gravel removal studies in arctic and subarctic floodplain in Alaska technical report (Woodward-Clyde Consultants, ed.), pp. 287-310. U.S. Fish Wildl. Serv., Biological Services Program, FWS/OBS-80/08. 403 pp. (I have the intro and summary and conclusions)
- Harvey, B.C., K. K. McCleneghan, J.D. Linn, and C.L. Langley. 1982. Some physical and biological effects of suction dredge mining. Lab. Report 82-3, California Department of Fish and Game, Rancho Cordova, CA.
- Harvey, M.D. and S.A. Schumm. 1987. Response of Dry Creek, California, to land use change, gravel mining, and dam closure. IAHS Publication 165:451-460, Erosion and Sedimentation in the Pacific Rim (I do not have a copy of the final version)
- Harvey, M.D. and T.W. Smith. 1998. Gravel mining impacts on San Benito River, California. Water Resources Engineering '98, Conference Proceedings pp. 304-309.
- Haschenburger, J.K. and P.R. Wilcock. 2003. Partial transport in a natural gravel bed channel. *Water Resources Research* 39(1):1020.
- Hatva, T. 1994. Effect of gravel extraction on groundwater. In: Soveri, J. and T. Suokko (Eds.), Future groundwater resources at risk. Proceedings of the Helsinki Conference: International Association of Hydrologic Sciences Publication No. 222: 427-434.

- Humphrey, J.H. and N.S. Braithwaite. 1987. Appendix A: Cottonwood Creek gravel extraction study. In: Environmental Impact Report for the Xtra Power Gravel Extraction Project, Cottonwood Creek. Prepared for the Tehama County Planning Department (California).
- Hora, Z.D. 1988. Sand and Gravel Study 1985: transportation Corridors and Populated Areas. Mineral Resources Division, BC Ministry of Energy, Mines, and Petroleum Resources, Victoria.
- Jacobson, R.B., 2004, Watershed Sustainability: Downstream Effects of Timber Harvest in the Ozarks of Missouri, in, Flader, S.J., ed., Toward Sustainability for Missouri Forests, USDA Forest Service North Central Research Station, General Technical Publication NC-239, p. 106-128.
- James, A. Time and the persistence of alluvium: river engineering, fluvial geomorphology, and mining sediment in California. *Geomorphology* 31:265-290.
- Jiongxin, X. 1996. Underlying gravel layers in a large sand bed river and their influence on downstream-dam channel adjustment. *Geomorphology* 17(4):351-360.
- Jordan, J.J. Managing the Russian River aggregate resources. Water Policy and Management: Solving the Problems, Conference Proceedings, ASCE.
- Jordan, J.J., Y. Rubin, and P. Goodwin. 1995. Using modeling to establish aggregate mining standards for groundwater protection. In: Hotchkiss, W.R., J.S. Donwey, E.D> Gutentag, and J.E. Moore (Eds.), Proceedings Water Resources at Risk: American Institute of Hydrology, p. RA-97-RA-107.
- Joyce, M.R. 1980. Effects of gravel removal on terrestrial biota. *In*: Gravel removal studies in arctic and subarctic floodplain in Alaska technical report (Woodward-Clyde Consultants, ed.), pp. 215-272. U.S. Fish Wildl. Serv., Biological Services Program, FWS/OBS-80/08. 403 pp. (I have the intro and summary and conclusions)
- Kaminarides, J.S., R. Kesselring, D. Marburger, R. Grippo, and G. Harp. 1996. An economic impact analysis of stream bed gravel mining. Report submitted to Arkansas Gravel Mining Task Force, State of Arkansas.
- Kanehl, P. and J. Lyons. 1992. Impacts of in-stream sand and gravel mining on stream habitat and fish communities, including a survey on the Big Rib River, Marathon County, Wisconsin. Wisconsin Depart. Nat. Resour. Res. Rep. 155, Madison, WI. 32 p.
- Kellerhals, R. M.J. Miles, and M. Zallen. 1987. Effects of gravel mining on the salmonid resources of the loer Fraser River. By: Kellerhals Engineering Services, Heriot Bay, BC, M. Miles and Associates, Victoria, BC, and Environmental Sciences Ltd., Vancouver, BC. For: Canada Department of Fisheries and Oceans, Habitat Management Division, Vancouver, and Habitat Management Unit, New Westminster, BC.

- Kelso, D.D. 1996. Channel migration, gravel mines, and public policy in the East Fork Lewis River, Clark County, Washington. University of California, Berkeley. 14 pp.
- Kira, H. 1972. Factors influencing the river behaviour: river bed variation due to dam construction and gravel gathering. Paper presented at the Eighth Congress, International Congress of Irrigation and Drainage, Varna, Bulgaria.
- Klingeman, P.C. 1973. Indications of streambed degradation in the Willamette Valley. Oregon State University, Corvallis: Water Resources Research Institute, WRRI-21.
- Klingeman, P.C. 1979. Short-term considerations on river gravel supply. *Salmon-Spawning Gravel Conference Proceedings* p. 123-139.
- Klingeman, P.C. 1987. Geomorphic influences on sediment transport in the Willamette River. *In*: Beschta, R.L, T. Blinn, G.E. Grant, F.J. Swanson, and G.G. Ice (eds.), Erosion and Sedimentation in the Pacific Rim. International Association of Hydrological Sciences. Capital City Graphics, Salem, Oregon. Pp. 365-374.
- Klingeman, P.C. 1999. Endicott gravel pit river connection analysis. Civil Engineering Department, Oregon State University. July 19, 1999.
- Knighton, A.D. 1991. Channel bed adjustment along mine-affected rivers of northeast Tasmania. *Geomorphology* 4:205-219.
- Kondolf, G.M. 1993. The reclamation concept in regulation of gravel mining in California. *J. Environ. Plann. Manage*. 36: 395-406.
- Kondolf, G.M. 1994a. Geomorphic and environmental effects of instream gravel mining. *Landscape Urban Plann*. 28: 225-243.
- Kondolf, G.M. 1994b. Environmental planning in regulation and management of instream gravel mining in California. *Landscape Urban Plann*. 29: 185-199.
- Kondolf, G.M. 1994c. Reclamation and instream gravel mining in California. *In*: Western Wetlands: Selected Proceedings of the 1993 Conference of the Society of Wetland Scientists, western Chapter, Davis, California. P. 136-142.
- Kondolf, G.M. 1995a. Managing bedload sediment in regulated rivers: examples from California, USA. In: Costa, J.E. A.J. Miller, K.W. Potter, and P. Wilcock (eds.), Natural and Anthropogenic Influences in Fluvial Geomorphology. *Geophysical Monograph*, vol. 89. American Geophysical Union, pp. 165-176.
- Kondolf, G.M. 1995b. Aggregate mining in alluvial rivers in California: a large-scale geomorphic experiment. *EOS*, Transaction, American Geophysical Union.
- Kondolf, G.M. 1997. Hungry water: effects of dams and gravel mining on river channels.

- Environ. Manage. 21(4): 533-551.
- Kondolf, G.M. 1998a. Environmental effects of aggregate extraction from river channels and floodplains. *In*: Aggregate resources: a global perspective (P.T. Bobrowsky, ed.), pp. 113-129. A.A. Balkema, Rotterdam. 470 pp.
- Kondolf, G.M. 1998b. Large-scale extraction of alluvial deposits from rivers in California: geomorphic effects and regulatory strategies. *In*: P.C. Klingeman, R.L. Beschta, P.D. Komar, and J.B. Bradley (eds.) Gravel Bed Rivers in the environment: Water Resources Publications, Highlands Ranch, Colorado. Pp. 455-470.
- Kondolf, G.M. and M.L. Swanson. 1993. Channel adjustments to reservoir construction and gravel extraction along Stony Creek, California. *Environmental Geology* (1993)21:256-269.
- Kondolf, G.M., C. Anderson, and J.C.Vick. 1997. Assessment of revegetation potential in floodplain gravel pits in California: influence of topography and hydrology. Report CEDR-13-97, Center for Environmental Design Research, University of California, Berkeley.
- Kondolf, G.M., and D.D. Kelso. 1996. Effects of aggregate mining in river floodplains: Some observations relevant to the policy on floodplain mining in Clark County, Washington. Comments submitted to the Clark County Planning Commission, April 1996.
- Kondolf, G.M., M. Smeltzer, and L. Kimball. 2002. Freshwater gravel mining and dredging issues. Prepared for: Washington Departments of Fish and Wildlife, Ecology, and Transportation.
- Kondolf, G.M., H. Piegay, and N. Landon. 2002. Channel response to increased and decreased bedload supply from land use change: contrasts between two catchments. *Geomorphology* 45:35-51.
- Kuper, D. and T. Kuper. No date. Future Oregon coastal aggregate resources potential. Report by Kuper Consulting LLC.
- Lacy, M.K. 1996. Reclaiming surface mined land to waterfowl habitat. *California Geology* 49(March/April): 36-43.
- Lagasse, P.F. 1975. The interaction of river morphology and hydraulics with riverine dredging operations. Thesis presented to Colorado State University, Fort Collins, in partial fulfillment of the requirements for the degree of Doctor of Philosophy.
- Lagasse, P.F. 1986. River response to dredging. *Journal of Waterway, Port, Coastal, and Ocean Engineering Division, ASCE* 112:1-14.
- Lagasse, P.F. and D.B. Simons. 1979. Impact of dredging on river system morphology. *In*: Proceedings of Specialty Conference on Utilization of Water and Energy Resources. American Society of Civil Engineers, New York. p. 434-457.

- Lagasse, P.F., B.R. Winkley, and D.B. Simons. 1980. Impact of gravel mining on river system stability. *J. Waterway, Port, Ocean Div., Amer. Soc. Civil Eng.*, 106 (WWE)L: 389-404.
- Laidlaw, K.A. and M.L. Rosenau. 1998. An assessment of the putative white sturgeon spawning habitat in areas impacted by scuffle dredging in the Fraser River: Hope to Mission. BC Ministry of Environment, Lands and Parks, Fish, Wildlife and Habitat Protection, Surrrey, BC. Regional Fisheries Report No. LM557. 15 pp. & appendices.
- Landon, N., H. Piegay, and J.P. Bravard. 1998. The Drome River incision (France): from assessment to management. *Landscape Urban Plann*. 43:119-131.
- Langer, W.H. 2001. Environmental impacts of mining natural aggregate. *In*: Bon, R.L., R.F. Riordan, B.T. Tripp, and S.T. Krukowski (eds.), Proceedings of the 35th Forum on the Geology of Industrial Minerals The intermountain west forum 1999: Utah Geological Survey Miscellaneous Publication 01-2, pp. 127-137.
- Langer, W.H. 2003. A general overview of the technology of In-stream mining of sand and gravel resources, associated potential environmental impacts, and methods to control potential impacts. USGS Open-File Report OF-02-153.
- Langer, W.H. in press. Environmental risk analysis and aggregate mining. *In*: Proceedings of the 37th Forum on the Geology of Industrial Minerals, 2001: British Columbia Ministry of Energy and Mines.
- Langer, W.H., C. Giusti, and G. Barelli. 2003. Sustainable development of natural aggregate, with examples from Modena Province, Italy. *Transactions of the Society for Mining, Metallurgy, and Exploration, Inc.* V 314: 138-144.
- Langer, W.H. and D.H. Knepper, Jr. 1998. Geologic characterization of natural aggregate: a field geologist's guide to natural aggregate resource assessment. *In*: Bobrowsky, P.T. (ed.), Aggregate Resources A Global perspective: A.A. Balkema, Rotterdam, Netherlands, pp. 275 293.
- Langer, W.H. and K.E. Kolm. 2001. Hierarchical systems analysis of potential environmental impacts of aggregate mining. Society for Mining, Metallurgy, and Exploration, Inc., Annual Meeting, 2001.
- Larson, D.W. 1996. Brown's Woods: an early gravel pit forest restoration project, Ontario, Canada. *Restoration Ecology* 4(1): 11-18.
- Lee, H.Y., D.T. Fu, and M.H. Song. 1993. Migration of rectangular mining pit composed of uniform sediments. *Journal of Hydraulic Engineering* 119(1):64-80.
- Lehre, A., R.D. Klein, and W. Trush. 1993. Analysis of the effects of historic gravel extraction on the geomorphic character and fisheries habitat of the Lower Mad River, Humbolt County,

- California. Appendix F to the draft program environmental impact report on gravel removal from the Lower Mad River. Department of Planning, County of Humbolt, Eureka, California.
- Levings, C.D. 1982. The ecological consequences of dredging and spoil disposal in Canadian water. Associate Committee on Scientific Criteria for Environmental Quality. National Research Council Canada. Pub. No. 18130. 142 pp.
- Li, L.Y. 1986. Analysis and regulation of sand and gravel mining in an alluvial river. Ph.D. Thesis, Colorado State University, Fort Collins.
- Li, R.M. and D.B. Simons. 1979. Mathematical modeling of erosion and sedimentation associated with instream gravel mining. *In*: Proceedings of the Specialty Conference on Conservation and Utilization of Water and Energy Resources, ASCE, New York, NY, pp. 420-429.
- Li, R.M., G.K. Cotton, M.E. Zeller, D.B. Simons, and P.O. Deschamps. 1989. Effects of instream mining on channel stability. Arizona Department of Transportation, FHWA-AZ89-250, June, 1989.
- Liebault, F. and H. Piegay. 2001. Assessment of channel changes due to long-term bedload supply decrease, Roubion River, France. *Geomorphology* 36:167-186.
- Lingley, W.S. Jr. 1994. Aspects of growth management planning for mineral resource lands: Olympia, Washington Department of Natural Resources. *Washington Geology* 22(2):36-45.
- Lisle, T.E. 1992. Effects of aggradation and degradation on riffle-pool morphology in natural gravel channels, northwestern California. *Water Resources Research* 18(6):1643-1651.
- Lisle, T.E. 2000a. Sediment transport-storage functions for alluvial reservoirs. *Transactions, American Geophysical Union* 81(48):November 28, 2000.
- Lisle, T.E. 2000b. The fate of large sediment inputs in rivers: implications for watershed and waterway management (no citation available).
- Lisle, T.E., F. Iseya, and H. Ikeda. 1993. Response of a channel with alternate bars to a decrease in supply of mixed-size bed load: a flume experiment. *Water Resources Research* 29(11):3623-3629.
- Lisle, T.E., J.M. Nelson, J. Pitlick, M.A. Madej, and B.L. Barkett. 2000. Variability of bed load mobility in natural, gravel-bed channels and adjustments to sediment load at local and reach scales. *Water Resources Research* 36(12):3743-3755.
- Lisle, T.E. and M. Church. 2002. Sediment transfer-storage relations for degrading alluvial reservoirs. (no citation available).
- Lyttle, M.M. 1993. Impacts of gravel mining on fish communities in three Ozark streams.

- Unpublished M.S. Thesis, University of Arkansas.
- MacDonald, A. 1988. Predicting channel recovery from sand and gravel extraction in the Naugatuck River and adjacent floodplain. *In*: Abt, S.R. and J. Gessler (eds.) Proceedings, ASCE 1988 National Conference on Hydraulic Engineering, August 8—12, Colorado Springs, CO.
- Marston, R. A., J. Girel, G. Pautou, H. Piegay, J.P. Bravard, C. Arneson 1995. Channel metamorphosis, floodplain disturbance, and vegetation development: Ain River, France. *Geomorphology* 13: 121-131.
- Marston, R.A., J.P. Bravard, and T. Green. 2003. Impacts of reforestation and gravel mining on the Malnant River, Haute-Savoie, French Alps. *Geomorphology* 55: 65-74.
- Martin, C.R. and T.B. Hess. 1986. The impacts of sand and gravel dredging on trout and trout habitat in the Chattahoochee River, Georgia. Georgia Department of Natural Resources, Game and Fish Division.
- Martin Y. 2003. Evaluation of bed load transport formulae using field evidence from the Vedder River, British Columbia. *Geomorphology* 53:75-95.
- Mas-Pla, J., J. Montaner, and J. Sola. 1999. Groundwater resources and quality variations caused by gravel mining in coastal streams. *Journal of Hydrology* 216:197-213.
- Matter, W.J. and R.W. Mannan. 1988. Sand and gravel pits as fish and wildlife habitat in the Southwest. US Fish and Wildlife Service, Resource Publication 171, Washington D.C.
- McGraw, K.A. and D.A. Armstrong. 1988. Fish entrainment by dredges in Grays Harbor, Washington. *In*: C.A. Simenstad (Ed.) Effects of Dredging on Anadromous Pacific Coast Fishes, Workshop Proceedings, Seattle, WA, September 8-9, 1988.
- Meador, M.R. and A.O. Layher. 1998. Instream sand and gravel mining: environmental issues and regulatory process in the United States. *Fisheries* 23: 6-13.
- Meserlyans, G.G. 1974. Hydromorphological analysis of the channel process in the Tom' River in relation to gravel mining in its channel. *Soviet Hydrology: Selected Papers* 2:90-95.
- Michalski, M.F.P., D.R. Gregory, and A.J. Usher. 1987. Rehabilitation of pits and quarries for fish and wildlife: Ontario Ministry of natural Resources, Aggregate Resources Division, 59 p.
- Morris, R.A. Regulatory and land use aspects of sand and gravel mining as they affect reclamation for wildlife habitat and open space: a national perspective. *In*: W.D. Svedarsky and R.D. Crawford (eds.), Wildlife values of gravel pits. University of Minnesota Agricultural experiment Station, Miscellaneous Publications 17-1982, pp. 16-23.

- Mossa, J. and M. McLean. 1997. Channel planform and land cover changes on a mined river floodplain. *Applied Geography* 17:43-54.
- Mossa, J. and W.J. Autin. 1998. Geologic and geographic aspects of sand and gravel production in Louisiana. *In*: Aggregate Resources: a Global Perspective, P. Bobrowsky, ed. Balkema, Rotterdam p. 439-463.
- Moulton, L.L. 1980. Effects of gravel removal on aquatic biota. *In*: Gravel removal studies in arctic and subarctic floodplain in Alaska technical report (Woodward-Clyde Consultants, ed.), pp. 141-214. U.S. Fish Wild. Serv., Biological Services Program, FWS/OBS-80/08. 403 pp.
- National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI). 1999. Scale considerations and the detectability of sedimentary cumulative watershed effects. Technical Bulletin No. 776. Research triangle Park, NC: National Council of the Paper Industry for Air and Stream Improvement, Inc. 327 pp.
- Nelson, E.L. 1993. Instream sand and gravel mining. *In*: C.F. Bryan and D.A. Rutherford (eds.), Impacts on warmwater streams guidelines for evaluation: Little Rock, Arkansas, Southern Division, American Fisheries Society, p. 189-196.
- Netsch, N., L.A. Rundquist, and L.L. Moulton. 1981. Effects of floodplain gravel mining in Alaska on physical factors important to salmon spawning. In: Proceedings from the Conference on Salmon-Spawning gravel: A Renewable Resource in the Pacific Northwest? October 6-7, 1980, Seattle, WA, Washington State University Water Research Center.
- Norman, D.K. 1998. Reclamation of flood-plain sand and gravel pits as off-channel salmon habitat. Olympia, Washington Department of Natural Resources. *Washington Geology* 26(2/3):21-28.
- Norman, D.K., C.J. Cedarholm, and W.S. Lingley, Jr. 1998. Flood plains, salmon habitat, and sand and gravel mining. Olympia, Washington Department of Natural Resources. *Washington Geology* 26(2/3):3-20.
- Norman, D.K. P.J. Wampler, A.H. Throop, E.F. Schnitzer, and J.M. Roloff. 1996. Best management practices for reclaiming surface mines in Washington and Oregon: Washington Division of Geology and Earth Resources Open File Report 96-2, 1 v.
- Norman, D.K. and W.S. Lingley, Jr. 1992. Reclamation of sand and gravel mines. Olympia, Washington Department of Natural Resources. *Washington Geology* 20(3):20-31.
- Northwest Hydraulic Consultants (nhc). 1998. Vedder River gravel mining 1997. Prepared for: <inistry of Environment, Lands and Parks. By: Northwest Hydraulic Consultants Ltd., North Vancouver, British Columbia. 12 pp. plus tables and figures.
- Nuttal, P.M. 1972. The effects of sand deposition upon the macroinvertebrate fauna of the River

- Camel, Cornwall. Freshwater Biology 2:181-186.
- Olson, S.A. 2000. Simulation of the effects of streambed-management practices on flood levels in Vermont. USGS Fact Sheet 064-00, 8 p.
- Oregon Water Resources Research Institute (OWRRI). 1995. Gravel disturbance impacts on salmon habitat and stream health. A report for the Oregon Division of State Lands. Vol 1: Summary Report. 52 pp. Vol 2: Technical background report. 225 pp.
- Orsborn, J.F. and S.C. Ralph. 1994. An aquatic resource assessment of the Dungeness River system. Prepared for the Jamestown S'Klallam Tribe, Sequim, WA, and the Quilcene Ranger District, Olympic National Forest, Quilcene, WA.
- Partee, R.R. and D.F. Samuelson. 1993. Weyco-Brisco ponds habitat enhancement design criteria. Unpublished report, Grays Harbor College, Aberdeen, Washington.
- Pauley, G.B., G.L. Thomas, D.A. Marino, and D.C. Weigand. 1989. Evaluation of the effects of gravel bar scalping on juvenile salmonids in the Puyallup River drainage. Final Report to the Washington Department of Fisheries, Service Contract No. 1620. Coop. Fish. Res. Unit, Univ. Wash., Seattle, WA. 150 pp.
- Pearson, R.G. and N.V. Jones. 1975. The effects of dredging operations on the benthic community of a chalk stream. *Biologic Conservation* 8:273-278.
- Pemberton, G. 1974. Shingle extraction in the Wairoa-Waimea Rivers. Unpublished Report to the Nelson Catchment Board, Nelson, New Zealand.
- Perrin, C.J., A. Heaton, and M.A. Laynes. 2000. The impact of suction dredging on the abundance of white sturgeon (*Acipenser transmontanus*) and its food resources in the Fraser River at Mission. Limnotek Research and Development Inc. Vancouver, BC,a dn cascade Fishing Charters Ltd., Chillliwack, BC. 44 pp. plus appendices.
- Petit, F., D. Poinsart, and J.P. Bravard. 1996. Channel incision, gravel mining, and bedload transport in the Rhone River upstream of Lyon, France ("canal de Miribel"). *Catena*. 26:209-226.
- Piegay, H. and J.L Peiry. 1997. Long profile evolution of a mountain stream in relation to gravel load management example of the Middle Griffe River (French Alps). *Environmental Management* 21(6):909-919.
- Poole, G.C. and C.H. Berman. 2001. An ecological perspective on in-stream temperature: natural heat dynamics and mechanisms of human-caused thermal degradation. *Environmental Management* 27(6):787-802.
- Poulin, R., R.C. Pakalnis, and K. Sinding. 1994. Aggregate resources production and environmental constraints. *Environmental Geology* 23:221-227.

- Prange, B.P. 1992. Guidelines and mitigation potential for gravel-pit wetland creation. Unpublished M.S. essay, The Evergreen State College, Olympia, WA. 79 p.
- Pringle, C.M. 1997. Exploring how disturbance is transmitted upstream: going against the flow. *J. N. Amer. Benthol. Soc.* 16: 425-438.
- Reidy, C. and S. Clinton. 2004. Down under: hyporheic zones and their function. Center for Water and Watershed Studies, University of Washington, Seattle.
- Reilly, B. 1999. Protecting salmon, excavating gravel. Aggregates Manager 4(9):42-44.
- Richardson, B. and M. Pratt. 1980. Environmental effects of surface mining other than coal: annotated bibliography and summary report. US Forest Service Publication No INT-95. Ogden, Utah. 145 pp.
- Rinaldi, M. Recent channel adjustments in alluvial rivers of Tuscany, central Italy. *Earth Surface Processes and Landforms* 28: 587-608.
- Rinaldi, M. and A. Simon. 1998. Bed-level adjustments in the Arno River, central Italy. *Geomorphology* 22: 57-71.
- Rivier, B. and J. Seguier. 1985. Physical and biological effects of gravel extraction in river beds. *In*: J.S. Alabaster, (ed.), Habitat modification and freshwater fisheries, pp. 131-146. Butterworths, London.
- Roberge, M. 2002. Human modification of the geomorphically unstable Salt River in metropolitan Phoenix. *The Professional Geographer* 54(2):175-189.
- Roell, M.J. sand and gravel mining in Missouri stream systems: aquatic resource effects and management alternatives. Report for the Missouri Department of Conservation: Conservation Research Center, 1110 South College Ave., Columbia, Missouri 65201.
- Rosenau, M. and M. Angelo. 2000. Sand and Gravel Management and Fish Habitat Protection in British Columbia Salmon and Steelhead Streams, Vancouver, BC: Pacific Fisheries Resource Conservation Council.
- Rowan, J.S. and J.J. Kitetu. 1998. Assessing the environmental impacts of sand harvesting from Kenyan rivers. *In*: Aggregate resources: a global perspective (P.T. Bobrowsky, ed.), pp. 87-99. A.A. Balkema, Rotterdam. 470 pp.
- Rundquist, L.A. 1980. Effects of gravel removal on river hydrology and hydraulics. *In*: Gravel removal studies in arctic and subarctic floodplain in Alaska technical report (Woodward-Clyde Consultants, ed.), pp. 67-140. U.S. Fish Wildl. Serv., Biological Services Program, FWS/OBS-80/08. 403 pp.

- Sandecki, M. 1989. Aggregate mining in river systems. *California Geology* 42: 88-94.
- Sandecki, M. and C.C. Avila. 1997. Channel adjustments from instream mining: san Luis Rey River, San Diego County, CA. *In*: R.A. Larson and J.E. Slosson (eds.) Storm-Induced Geologic hazards: Case Histories from the 1992-1993 Winter in Southern California and Arizona: Boulder, Colorado, Geological Society of America Reviews in Engineering Geology, Vol. XI, pp. 39-48.
- Scott, K.M. 1973. Scour and fill in Tujunga Wash Fanhead Valley in urban southern California 1969. USGS Professional Paper 732-B, 29 p.
- Scott, M.L., E.D. Eggleston, G.T. Auble, J.M. Freidman, L.S. Ischinger. 1995. Effects of Gravel Mining on Natural Cottonwood Stands. 6th Annual Colorado Riparian Conference.
- Schnitzer, E.F., P.J. Wampler, and S.R. Mamoyac. (1999). Floodplain aggregate mining in western Oregon. *Mining Engineering* December 1999: 21-29.
- Schultz, P. 1990. Disused gravel mines provide skiing and boating for Denmark. *Landscape Architecture* 80:30-32.
- Sear, D.A. and D. Archer. 1998. Effects of gravel extraction on stability of gravel-bed rivers: the Wooler Water, Northumberland, UK. *In*: P.C. Klingeman, R.L. Beschta, P.D. Komar, and J.B. Bradley (eds.) Gravel Bed Rivers in the environment: Water Resources Publications, Highlands Ranch, Colorado. Pp. 455-470.
- Seakem Group Ltd. 1992. Yukon placer mining study. Volume I Executive Summary. Prepared for the Yukon placer mining implementation review committee. Sidney, BC. 17 pp.
- Sheridan, W.L. 1967. Effects of gravel removal on a salmon spawning stream. US Department of Agriculture, Forest Service. 26 pp.
- Simons, Li, and Associates. 1980. Report regarding the safe yield of sand and gravel from the Russian River Dry Creek System. Supplement to Evaluation Report: Aggregate Resources Management Study, Draft Environmental Impact Report.
- Smith, M.R. and L. Collis (eds.). 1993. Aggregates: sand, gravel and crushed rock aggregates for construction purposes: second edition. Geological Society of Engineering Geology, Special Publication No. 9: The Geological Society of London. (I have pages 16 19).
- Sparks, R.E., P.B. Bayley, et al. 1990. Disturbance and Recovery of Large Floodplain Rivers. *Environmental Management* 14: 699-709.
- Spiegelman, J. 2000. The Aggregate Industry in the Georgia Basin: A Working Paper. The Pace Group, SDRI, Version 2, 6/14/2000.
- Starnes, L.B. 1983. Effects of surface mining on aquatic resources in North America. Fisheries

- Starnes, L.B. and D.C. Gasper. 1995. Effects of surface mining on aquatic resources in North America. *Fisheries* 20: 20-24. (or 1996, 21(5):24-26).
- Stinson, R. and S. Stinson. 1998. Affects of gravel bar harvesting, on gravel bar armor layer and substrate material in four watersheds on the north Oregon coast. Report prepared for the Tillamook County Soil and Water Conservation District.
- Surian, N., and M. Rinaldi. 2003. Morphological response to river engineering and management in alluvial channels in Italy. *Geomorphology* 50:307-326.
- Sutek Services, Ltd. and Kekerhals Engineering Services, Ltd. 1989. Assessing gravel supply and removal in fisheries stream. Report to Dept. of Fisheries and Oceans and British Columbia Ministry of Environment.
- Svedarsky, W.D. and R.D. Crawford (eds.). 1982. Wildlife values of gravel pits, symposium proceedings. University of Minnesota Agricultural Experiment Station. Miscellaneous Publication 17-1982. St. Paul, Minnesota.
- Thomas, H.P. and R.G. Tart, Jr. 1980 Geotechnical engineering considerations of gravel removal. *In*: Gravel removal studies in arctic and subarctic floodplain in Alaska technical report (Woodward-Clyde Consultants, ed.), pp. 311-330. U.S. Fish Wildl. Serv., Biological Services Program, FWS/OBS-80/08. 403 pp.
- Thomas, V.G. 1985. Experimentally determined impacts of a small, suction gold dredge on a Montana stream. *North American Journal of Fisheries Management* 5(3B):480-488.
- Tingsanchali, T. and H.J. Overbeek. 1980. Morphological study on the effects of sand dredging in the Chao Phraya River, Thailand. AIT Res. Rep. 96, Bangkok.
- US Army Corps of Engineers. No date. Environmental consequences associated with granting and extending permits for proposed commercial dredging activities within the Allegheny River and Ohio River. Executive Summary developed by the Pittsburgh District COE.
- US Army Corps of Engineers. 1982a. report of the impacts of commercial dredging on the fishery of the lower Kansas River. US Army Corps of Eng., Kansas City, MO Report No. DACW 41-79-C-0075.
- US Army Corps of Engineers. 1982b. Report on the cumulative impacts of commercial dredging on the Kansas River: a social, economic, and environmental assessment. US Army Corps of Eng., Kansas City, MO Report No. DACW 41-79-C-0017.
- Van Nieuwenhuyse, E.E. 1983. The effects of placer mining on the primary productivity of interior Alaska streams. MSc. Thesis, University of Alaska, Fairbanks, AK.

- Vick, J.C. 1995. Channel change from dam construction and instream gravel mining in the lower Merced River, California: implications for restoration of native salmon populations. *EOS*, *Transaction, American Geophysical Union*.
- Wagner, R. 1959. Sand and gravel operations. Fifth Symposium Pacific Northwest on Siltation. Proc. US Public Health Service, Portland, OR.
- Wampler, P. and F. Schnitzer. 1996. Aggregate mining at the confluence of the McKenzie and Willamette Rivers. Unpublished agency report, Oregon Department of Geology and Mineral Industries, Mined Land Reclamation Program, Albany, OR.
- Washington Department of Natural Resources. 1989. Gravel removal from rivers for reducing flood risk. Washington Departments of Natural Resources and Ecology, Olympia, Washington.
- Weatherly, H. and M. Church. 1999. Gravel extraction inventory for Lower Fraser River Mission to Hope 1964 to 1998. Prepared for: District of Chilliwack, 8550 Young Road, Chilliwack BC, V2P 4P1. By: Department of Geography, University of British Columbia, Vancouver, BC. 10 pp. plus tables and figures.
- Webb, W.E. and O.E. Casey. 1961. The effects of placer mining (dredging) on a trout stream: Boise, Idaho Department of Fish and Game F-034-R-03, 22 p.
- Weber, L.L. and R.M. Li. 1989. A computer model for gravel pit headcut simulation. *In*: S.S. Wang (ed.) Sediment Transport Modeling, Conference Proceedings, pp. 783-788.
- Werth, J.T. 1980. sand and Gravel Resources: Protection, Regulation and Reclamation. American Planning Association, report #347, Chicago.
- Weigand, D.C. 1991. Effects of gravel scalping on juvenile salmonid habitat. M.S. Thesis, University of Washington, Seattle, 148 p.
- Whelan, R.M. 1995. An economic analysis of construction aggregate markets and the results of a long-term forecasting model for Oregon. Speical paper 27, Oregon Department of Geology and Mineral Industries.
- Williman, E.B. 1977. Sand and shingle extraction guidelines. Part 1: Management. Water and Soil Division, Ministry of Works and Development, New Zealand, unpublished report.
- Woodward-Clyde Consultants. 1980a. Gravel removal studies in arctic and subarctic floodplains in Alaska. Technical Report for US Fish and Wildlife Service, FWS/OBS-80/08. (I have several sections but not the complete document).
- Woodward-Clyde Consultants. 1980b. Gravel removal guidelines manual for arctic and subarctic floodplains. Technical Report for US Fish and Wildlife Service, FWS/OBS-80/09, 171p.

- Woodward-Clyde Consultants. 1976. Aggregate extraction in Yolo County: a study of impacts and management alternatives. Aggreagte Resources Advisory Committee, County of Yolo Planning Department.
- Wulforst, J. and G. Annandale. No date. Channel degradation due to gravel mining: application of geomorphic analysis and sediment transport modeling approaches. Engineering Approaches to Ecosystem Restoration, Conference Proceedings, ASCE.
- Yokley, P. Jr. and C.H. Gooch. 1976. The effect of gravel dredging on reservoir primary production, invertebrate production, and mussel production. Tenn. Wildl. Resource Agency Proj. No. 2-245-R. 32 pp.
- Zmuda, M.J. 1982. The formulation of lowland sand and gravel excavation regulations: Wisconsin Administrative Code NR-340. *In*: W.D. Svedarsky and R.D. Crawford (eds.) Wildlife Values of Gravel Pits. Northwest Agricultural Experiment Station, Univ. Minn. Tech. Coll., Crookston. Misc. Pub. No. 17. p. 67-72.